

WorldAgInfo Project
Problem Space and Solution Hypotheses
Cornell Workshop October 2007

Problem 7. Traditional information delivery methods
have not worked well and are too top down.

Problem 15. Agricultural researchers are not closely linked with farmers, so research is
not based on needs at the farm level and research information that is relevant to the
farmer does not reach the local level.

Solution hypothesis 7.5 Learning communities for agricultural knowledge
Solution hypothesis 15.2 Integrated farmer-extension-research systems

**INTEGRATED FARMER-RESEARCH-EXTENSION SYSTEMS
FOR R&D RELEVANT TO SMALL FARMERS.**

1. THE CONCEPT

Traditional top-down information delivery methods typically bypass poor women farmers in Africa who require novel approaches to extension if they are to engage successfully with markets and benefit from new technologies for increasing productivity. Often technologies being extended to smallholders are labor intensive and not suited to women farmers because researchers do not understand that technologies which reduce the overall labor burden of women smallholders in Africa and provide them with more control over their labor and farm outputs will have the biggest impact on their well-being.¹

This innovation gap needs to be addressed by the integration of farmer-extension-research provided by the innovation systems approach to agricultural R&D. Innovation systems give high priority to networking, cross-learning and the exchange of know-how among multiple actors in private and public sectors, including farmers, business enterprises, universities, civil society organizations and state-funded research and extension providers. Effective agricultural innovation systems accompany integrated, participatory farmer-research-extension approaches with learning communities that innovate in response to producers' demand. This note proposes the creation of an international south-south learning community to exchange and apply this type of innovation systems approach to the development and dissemination of technologies designed to ameliorate women farmers' drudgery and lack of control over farm produce and income.

2. RATIONALE AND EVIDENCE THE PROJECT CAN BE SUCCESSFUL

¹ Doss, C.R. 2001. Designing agricultural technology for African women farmers: lessons from 25 years of experience. *World Development*, 29,12:2075-2092.

The persistent low level of adoption of technological innovations in agriculture by poor farmers has catalyzed a broad international effort to restructure national innovation systems to provide a market for pro-poor research and extension services. Several countries in East Africa, notably Kenya and Uganda, have made important advances in establishing mechanisms for demand-led, pro-poor innovation similar to efforts undertaken several years ago in the Andean countries, notably Bolivia, Colombia, Ecuador and Peru. In 2006, the Andean Change Program was launched to foster a regional learning community for exchange of experience using participatory farmer-research-extension approaches among these Andean countries with the intention of expanding the program to involve outreach to East Africa at a later date.²

An important opportunity exists to leverage substantial prior investment over almost a decade by DFID and other donors as well as by the two CGIAR centers, CIP and CIAT that facilitate the program, in the development of these approaches and to contribute to the international spillover of experience with integrated farmer-extension-research approaches. Making the training materials, training courses and lessons learned from impact studies of the Andean experience available to international, English-speaking audiences is one of the Andean Change Program's objectives. The program of south-south exchange proposed here will build around common problems with respect to the feminization of agriculture and the marginalization of women smallholder producers in the tropical highland agro-ecological zone in East Africa and the Andes.

3. EXPECTED BENEFITS OF THE PROJECT INCLUDING COMMENTS ON SUSTAINABILITY AND SCALE

There is a rich and diverse experience with the introduction of participatory approaches in east Africa with varying success in institutionalization, but at present there is no coherent picture as to the lessons learned from their application or their impact on poor producers, in particular women farmers. The processes of methodological experimentation and adaptation, capacity building, institutional policy change and impact on producer innovation are poorly documented and have not been analyzed systematically. Innovation with these approaches is occurring in each country without the benefit of regional knowledge-sharing on ways to make market-led innovation more pro-poor.

The proposed south-south exchange will link the Andean Change Program with national research and extension institutions in East Africa, starting in Kenya and Uganda, with support from CIP, which currently provides scientific leadership to the Andean Change

² The Andean Change Program is supported for 2006-2010 by DFID and collaborates with a network of national research institutes working on participatory approaches called the Andean Consortium, supported by DGIS. Their combined funding amounts to approximately Us \$10 million.

Program in collaboration with CIAT. South-south exchange would offer African research and extension professionals access to training and know-how on the products of the Andean Change program that provide a model for south-south knowledge sharing on a regional scale

4. HOW THE PROJECT WILL TARGET THE NEEDS AND BE OF SPECIFIC BENEFIT TO WOMEN SMALLHOLDERS

The proposed Program's strategy for improving the alignment of market-led agricultural innovation with poverty-reduction through the use of participatory methodologies will build on the prior experience of the Andean Change program to:

- Carry out an action-research-oriented inventory of experience with using participatory methods and approaches in technology innovation and value chain development to benefit women farmers in East African national agricultural innovation systems (NAIS)
- Collaboratively assess the methodological gaps in experience to establish the demand for using methodologies proven successful in the Andean Change Program.
- Conduct a competitive small grant program: the Program provides a procedure for proposal development that links demand for innovation with suppliers
- Assess the gender-differentiated impact of using these methods on local development and livelihoods of the poor.
- Systematize experiential learning about the process of institutionalizing participatory methods and approaches in organizations within each NAIS and with farmer groups and organizations
- Promote south-south learning among research and extension professionals about how to identify and respond to women farmers' demand for more client-responsive, demand-driven approaches to agricultural innovation that give farmers more control over the quality of research and extension services.
- Use evidence of impact and lessons learned to inform policy in the region about changes needed to expand the use of these approaches

5. PROJECTED COSTS OF THE PROJECT

The proposed program is an opportunity to leverage a substantial investment in the development of a suite of participatory methodologies, and the training required to implement these. Additional investment to promote south-south exchange between the Andean Change program and the proposed East African partners would amount to an estimated US\$ 1.5 million annually, for a total of five years.

6. MEASURES OF SUCCESS

The Program's expected impacts will include:

1. Agricultural research and extension professionals in the public sector and NGOs in East Africa are better informed about smallholders priorities for agricultural innovation and adapt their recommendations accordingly, through use of a set of gender-responsive, participatory research methodologies
2. Up to 5000 farmer organizations and at least 1 million smallholders are contributing to the content of, and receiving more relevant information from agricultural extension, through the use of gender-responsive, participatory learning methodologies.
3. Yields, productivity, levels of successful market-engagement and incomes of smallholders participating in the program increase, through faster rates of adoption of more appropriate recommendations and use of participatory market chain development methodology.
4. The productivity and income gaps between participating women and men smallholders attributed to differential access to and relevance of extension information is reduced in the first two years of the program, and thereafter becomes insignificant.
5. A practical, proven approach for South-South knowledge sharing is operating on a regional scale in East Africa about the use of gender-responsive, participatory methodologies

7. RISKS

Strong demand exists in Africa for proven participatory approaches that integrate farmers, research and extension to support the development of innovations suitable for women farmers. However, a serious risk is the institutional instability and mobility of professionals in national research and extension systems that prevents training and knowledge exchange from being put into practice. The Program's strategy to counter this risk is to first identify demand for methodologies and approaches and then to establish partnerships between demand and supply through competitive grants before embarking on training. This helps to ensure that training is provided where there exists a prior commitment and capacity to apply the methodologies.